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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,990	09/19/2003	Artur G. Olszak	P 6121.62023	6660
57931	7590	03/16/2006	EXAMINER	
ANTONIO R. DURANDO 6902 N. TABLE MOUNTAIN ROAD TUCSON, AZ 85718-1331			PRITCHETT, JOSHUA L	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,990

Applicant(s)

OLSZAK ET AL.

Examiner

Joshua L. Pritchett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7, 17, 19-24 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7, 17, 19-24 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to Request for Continued Examination and Amendment filed February 7, 2006. Claims 2-6 and 19-22 have been amended and claims 1, 8, 18 and 25 have been cancelled as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections microscope arrays forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as microscope arrays forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-7, 17, 19-24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tafas (US 6,320,174).

Regarding claims 2 and 19, Tafas teaches a scanning imaging system comprising a plurality of two dimensional microscope arrays microscope arrays of optical elements (210) each microscope array being disposed with respect to a corresponding image plane and configured to image respective portions of the object (Fig. 3); a scanning mechanism (150) for producing relative movement between the microscope arrays and the object to scan the object (col. 4 lines 32-35); image sensors (130) corresponding to the microscope arrays of optical elements adapted

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for capturing image data representative of the respective portions of the object imaged thereby (col. 4 lines 20-21); and a mode implementation system (140) for combining the image data captured by the image sensors during a scan of the scanning mechanism wherein different microscope arrays are configured to operate according to different desired modes of operation of the imaging system (col. 4 lines 8-31) during the scan of the scanning mechanism. Fig. 3 shows an array of four columns and three rows; however the array can be viewed as two arrays of two columns and three rows thus yielding a plurality of two-dimensional arrays. The CCD cameras shown in Fig. 1 act to capture the image obtained by the scan of the scanning mechanism. Tafas also states (col. 4 lines 8-15) that each of the elements in the arrays has its own focus mechanism which would cause different viewings of the sample. Tafas teaches the microscope arrays scan the same portion of the object sequentially and image a same area of the object during the scan of the scanning mechanism (Fig. 2, col. 4 lines 55-67). Tafas lacks specific reference to the microscope arrays scanning the same portion of the object. Tafas suggest the microscope arrays scanning the same portion of the object (Fig. 2). As the stage moves in the direction shown in Fig. 2 each objective would view the same portion of the after viewing the third grid location. The objective on the far left in Fig. 2 would observe grid location "3" associated with the far left objective and then move to view the grid location "1" associated with the center objective, thus viewing the same portion of the object. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Tafas invention have the objectives view the same portion of the object as suggested by Tafas for the purpose of viewing the object at different magnifications after a single scanning pass.

Regarding claims 3 and 20, Tafas teaches the image data corresponding to different microscope arrays of optical elements are registered with one another by the mode implementation system (col. 4 lines 28-31).

Regarding claims 4 and 21, Tafas teaches the invention as claimed but lacks reference to the use of the optical elements to represent different colors. It is extremely well known in the art to use red, green and blue (RGB) optical elements to capture a microscope image. Official Notice is taken. RGB optics is used to obtain a better electronic image quality to better examine the object. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the optical elements of Tafas represent different colors as is known in the art for the purpose of obtaining a better electronic image of the object being examined.

Regarding claims 6, 7, 23 and 24, Tafas teaches the invention as claimed but lacks specific reference which type of microscopy the invention is used for. It is well known in the art to use the same microscope objectives for both trans-illumination and fluorescent microscopy. Official Notice is taken. In either case the objective would remaining in the same position relative to the object and the location of the light source would change. Tafas states only that a light source is used to illuminate the object (col. 4 lines 32-40), but is silent as to the location of the light source. Therefore the Tafas invention would be compatible with either trans-illumination or fluorescent microscopy. Furthermore the claim limitations state that the objectives are adapted but fail to state how the objectives are adapted. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Tafas invention be capable of both trans-illumination and fluorescent microscopy as is known in the prior art for the purpose of increasing the versatility of the microscope array.

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Regarding claims 5 and 22, Tafas teaches the image data corresponding to the different microscope arrays of optical elements represent respectively different object planes (Figs. 2-3).

Regarding claims 17 and 34, Tafas teaches the invention as claimed but lacks reference to the use of a scanning tray. It is extremely well known in the art to have the microscope objective disposed in a tray that is capable of moving relative to the object for the purpose of scanning the object. Official Notice is taken. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Tafas objective scan the object as is known in the art for the purpose of scanning the object while keeping the object stationary to prevent any disturbance of the object.

Response to Arguments

Applicant's arguments filed February 7, 2006 have been fully considered but they are not persuasive.

Applicant argues that Tafas fails to teach or suggest different objectives viewing the same portion of the object. As the stage moves in the direction shown in Fig. 2 each objective would view the same portion of the after viewing the third grid location. The objective on the far left in Fig. 2 would observe grid location "3" associated with the far left objective and then move to view the grid location "1" associated with the center objective, thus viewing the same portion of the object.

Applicant further argues that Tafas fails to teach or suggest the microscope arrays do not operate in different modes of operation to produce different images. Each of the objectives has

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its own independent z-movement (col. 4 lines 8-19), therefore each objective can view a broader or narrow area of the sample to produce higher or lower magnification images.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP 



**DREW A. DUNN
SUPERVISORY PATENT EXAMINER**